

## Abstract

*A*  
The invention relates to *A* a method for determining and controlling the material flow of continuous-cast slabs, in particular steel slabs, by monitoring and optimizing the temperature on their transport path between the continuous-casting installation and the rolling mill. *Includes* In this method, to *A* determine the amount of heat and the temperature profile of the slab, starting from the known temperature of the liquid phase at the mold exit of the continuous-casting installation and *A4* ~~given knowledge of~~ the physical parameters of the slab, the convective mixing of the amount of heat contained in the slab and the time-dependent heat loss from the inhomogeneously cooling slab to the surrounding medium *using* ~~are~~ calculated by means of a mathematical-physical model, and *using the* ~~the~~ result of the calculation, if appropriate together with the measured surface temperature of the slab, ~~is used~~ to control the material flow in an existing slab-monitoring system.